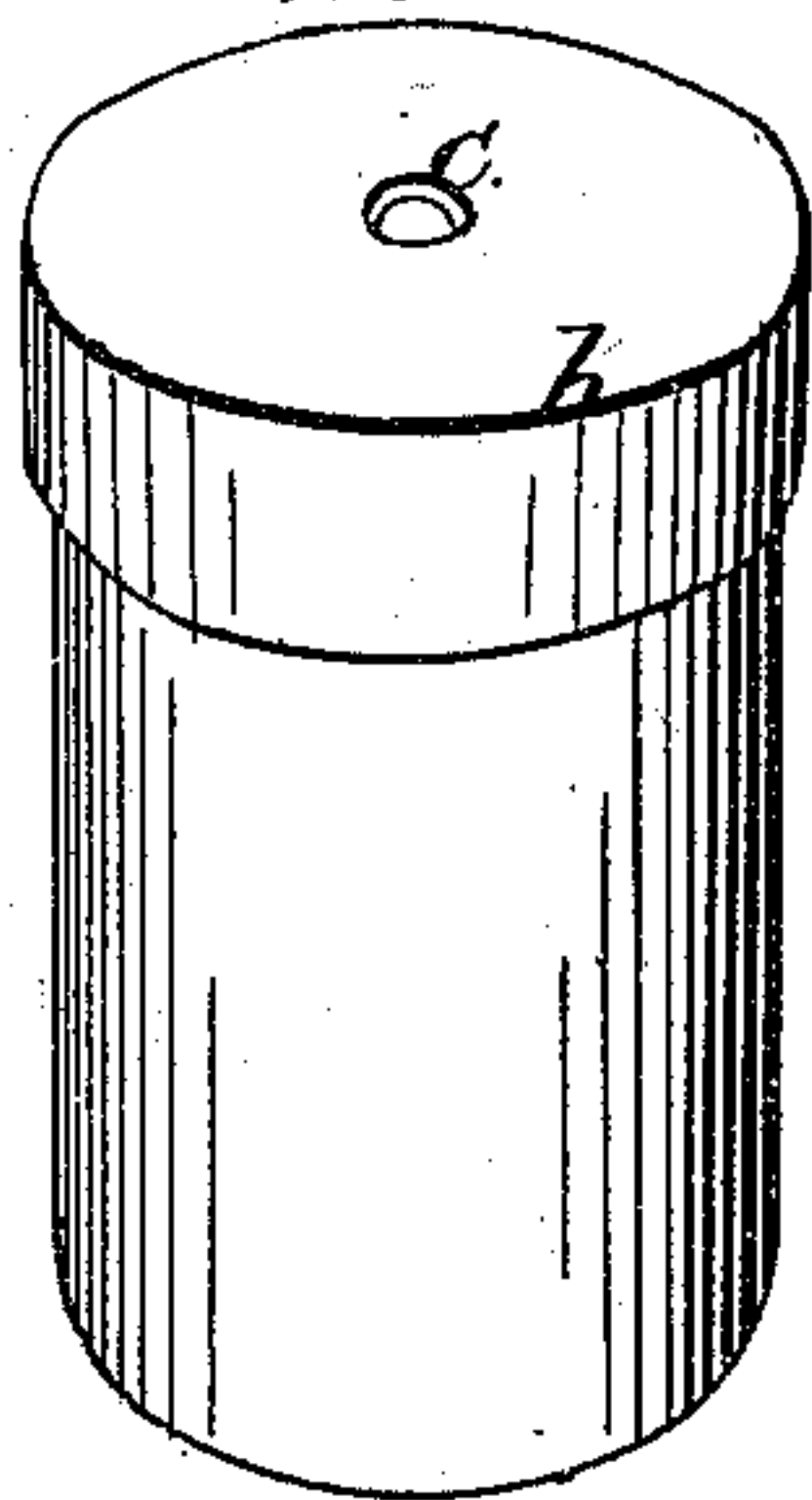
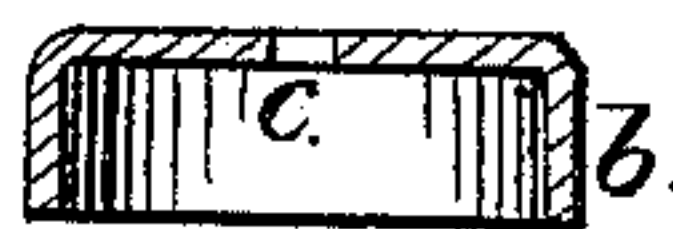


*B. D. Sanders,*  
*Shoemakers' Tool,*  
*No. 42,228, Patented Apr. 5, 1864.*

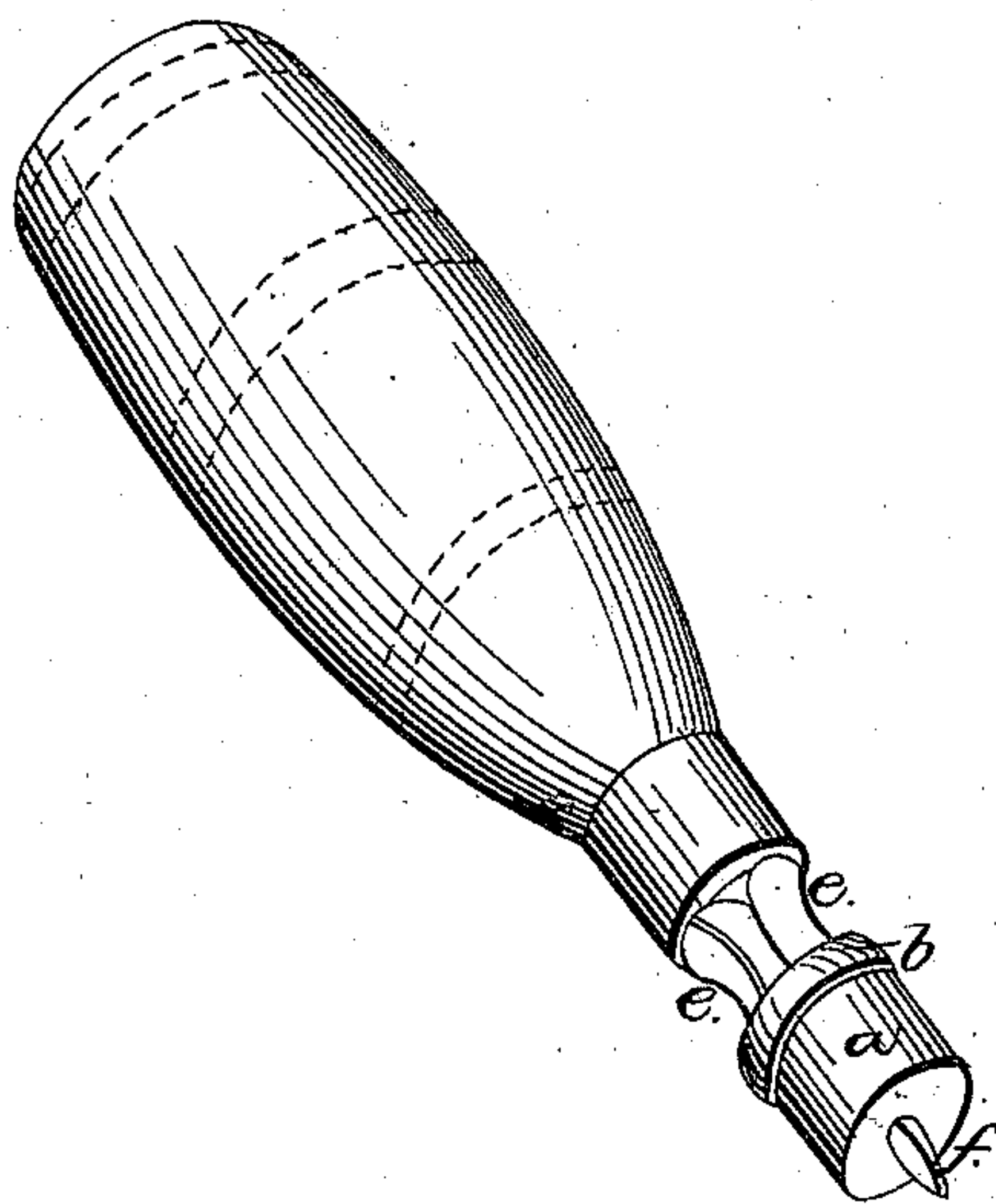
*Fig. 1.*



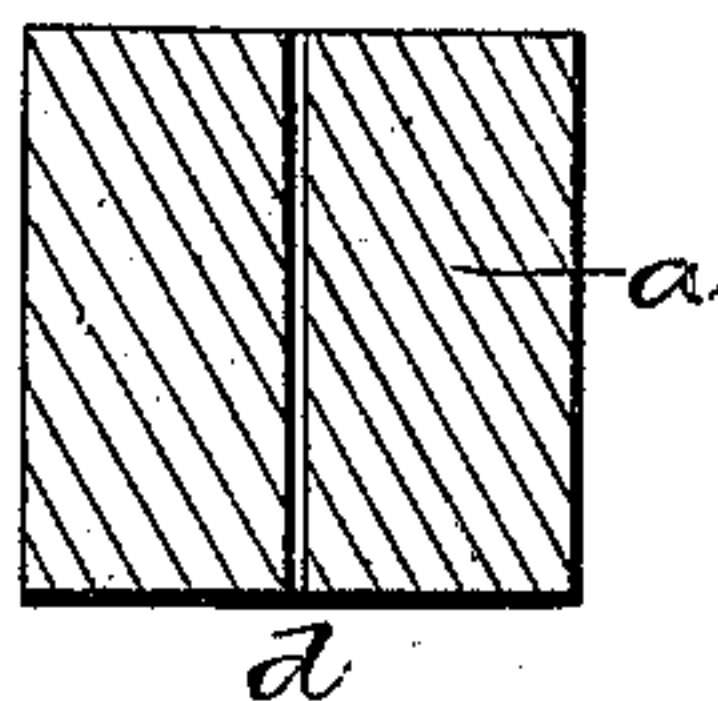
*Fig. 3.*



*Fig. 4.*



*Fig. 2.*



*Witnesses:*  
*R. T. Campbell.*  
*J. C. Chapin.*

*Inventor:*  
*Benjamin Davis Sanders*  
*by his Atty:*  
*Mason Fenwick Khammer.*

# UNITED STATES PATENT OFFICE.

BENJAMIN DAVIS SANDERS, OF WELLSBURG, WEST VIRGINIA.

## ELASTIC CUSHION FOR PIERCING IMPLEMENTS.

Specification forming part of Letters Patent No. 42,228, dated April 5, 1864.

*To all whom it may concern:*

Be it known that I, BENJAMIN DAVIS SANDERS, of Wellsburg, in the county of Brook, in the State of West Virginia, have invented a new and useful article of manufacture applicable to the nibs of awls and other piercing implements, and which I denominate an "Elastic Cushion for Piercing Implements;" and I do hereby declare the following to be a true and exact description thereof, reference being had to the accompanying drawings and the letters of reference marked thereon, in which drawings—

Figure 1 is an enlarged perspective view, and Fig. 2 a vertical central section, of my elastic cushion for piercing implements, the metallic cap constituting a portion thereof, but removed therefrom, being shown in like section as indicated in Fig. 3.

The object of my invention is to provide a cheap, durable, and efficient device or implement, which may be readily applied to the nibs or pointed portions of piercing-tools, and which will automatically retain itself thereon, the design of such application being to enable piercing implements to be self-retracting, or, in other words, to have the power to withdraw their nibs or pointed portions from substances into which they may have been driven by a sudden blow. To this end I construct an elastic cushion, *a*, of cylindric form, as represented in the figures, though the mere form is not material to the effect to be produced by its use. This spring-cushion I prefer to make of vulcanized rubber, though it can be made of a compound of india-rubber and other substances, or simply of the ordinary india-rubber without vulcanization. The length and diameter of the spring are various, according to the size of the implement to which it is to be applied, and at its upper end, as shown in Figs. 1 and 4, it is inclosed by a metallic cap, *b*. (Represented in Fig. 3.) The inner diameter of cap *b*, I make somewhat less than the diameter of the cushion or spring *a* which it is intended to receive, in order that the cap may be automatically retained upon the cushion when the latter is forced therein, as shown in Figs. 1 and 4, the elastic power of the cushion being

sufficient for this purpose. Centrally of the cap a perforation, *c*, is made of a size sufficient to admit the passage through it of the nib or pointed end of any implement to which the cushion is to be applied, and corresponding or registering with such aperture a central puncture or aperture, *d*, is made through the elastic portion *a*, but of a less size or diameter than the nib or working end of the implement upon which it is to be placed, so that the elastic qualities of the cushion may automatically retain it in position thereon. The metallic cap I prefer to construct from malleable plate metal, though they may be cast, but in either case care should be taken to have them of sufficient strength to resist the action of blows upon the implement to which my cushion may be applied.

In Fig. 4 I have shown my elastic cushion applied to an ordinary awl used by shoemakers, the cap *b* resting against the jaws *e* of such implement and the nib *f* of the awl projecting a short distance through the cushion; and here I would remark that the proper distance for the point of the nib *f* to project from the spring *a* may be governed by the thickness of the material to be pierced and the distance it is desired to drive the point into the material.

I contemplate the application of the metal cap above described to both ends of the spring *a*, but for the ordinary purpose of a shoemaker's awl I prefer but one cap, as shown, inasmuch as I thereby obviate all liability to mar the work.

The action of my elastic cushion for piercing-instruments is obvious. Supposing it to be placed upon a shoemaker's awl, as indicated by Fig. 4, and that such implement is in the act of being used, it is evident that the blow of the hammer in forcing the nib *f* into the leather will at the same time compress the spring *a* longitudinally of the nib, and that the moment the power of the blow is expended the elasticity of the spring-cushion will cause the awl to be withdrawn. It is also obvious that during this act the cap *b* serves the purpose of distributing the force of the blow throughout the spring, protects



it from injury, confines it in position during the moment of compression, and in a measure gives steadiness and proper direction to the awl-nib.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

As a new article of manufacture, an elastic cushion for piercing-instruments, substantially as and for the purpose described.

B. D. SANDERS.

Witnesses:

R. T. CAMPBELL,  
E. SCHAFER.